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09/445,135	03/13/2000	DARRELL WAYNE RANDALL	RCA88682	9528

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EXAMINER	
RAMAN, USHA	
ART UNIT	PAPER NUMBER
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/445,135	RANDALL ET AL.	
	Examiner	Art Unit	
	USHA RAMAN	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9-14-07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Miscellaneous

1. Please note that the examiner of record for this application has changed.

Continued Examination

2. Pursuant to the decision of the Board of Appeals on 28 February 2006, the examiner has specific knowledge of the existence of a particular reference or references which indicate non-patentability of any of the appealed claims as to which the examiner was reversed.

PROSECUTION IS HEREBY REOPENED.

The TC Director has approved of reopening prosecution by signing below:

Response to Arguments

3. In response to the issues raised in the Appeal Brief and subsequent decision in which it was noted that the examiner did not specifically indicate for review how particular elements were met. The particular teachings of "program descriptive fields" of Youman et al. were never in dispute; nor was the issue that Torres did not display "program descriptive fields" prior to the Board's decision ever raised by Appellants throughout prosecution or in the Appeal Brief. As such, no further identification over and above that provided

in the record was believed necessary. Consequently, in light of the Board's decision, further explanation of the new grounds of rejection is being provided.

The Youman et al. reference provides a system and method for allowing a user to search for a program of interest within a program guide database (Col 8, Lines 19-21). The Youman et al. system, analogous to applicant's invention, may also be implemented using a plurality of devices including computers (Col 9, Lines 59-65). As illustrated in Figure 38C, Youman et al. search interface initially provides a list of program descriptive fields (ex. Title or Category/Content (Movie, Sports, or Children)) from which the user can select a program descriptive field (ex. Title). Subsequently, the user is presented with an entry for a text string (Figure 38D). Upon entry of a text string (ex. "A"), the search interface presents an alphabetically sorted list of programs (ex. "A-List") having the entered text string within the previously presented program descriptive field (ex. Find all Titles with the Letter "A" in their name). The system performs an alphabetical sort by teaching that the program schedule information is stored in 'appropriately organized records in DRAM' within a database that is updatable on a periodic basis (Col 8, Lines 18-25). The reference further teaches that in Figure 19 that the 'user is given a display of all movies, prioritized by time and *then alphabetically* by title of show" (Col 17, Lines 18-21) and again Figure 38D describes the alphabetic by Title arrangement (Col 31, line 5- column 32, line 29). Clearly, any display of program listings in alphabetical order must be the result of a sort operation

given that the organized data is updated on a periodic basis and displayed alphabetically.

All parties concurred, that the difference between Youman et al. search interface and the invention, as claimed, is that Youman et al. does not illustrate "displaying concurrently a list of program descriptive fields and en entry for entering a text string". Rather, as noted, Youman et al. illustrates a list of program descriptive fields in Figure 38C and the entry for a text string in Figure 38D. Accordingly Youman teaches that the prior art contains all of the claimed elements; however, those elements are illustrated on two successive graphical screens as opposed to being displayed concurrently or on a single graphical screen.

The Kahl reference illustrates a user interface that enables a user to search for items of interest within a database (Col. 1, Lines 9-12 and 28-32). As aforementioned, the programming guide information of Youman et al. is stored in a database and therefore the interface of Youman et al. (Figures 38C and 38D) is also a user interface for searching a database. Analogous to applicant's invention, the teachings of Kahl are not limited to a particular type of data to be searched. Applicant's invention, the Youman et al. reference, and Kahl may be implemented using similar devices, namely a computer (Kahl: Figure 1; Col. 3, Lines 50-60). Kahl teaches that such devices are known to provide an interface for searching the database (Col. 4, Lines 13-28) that allow for full-text keyword (i.e. text string) and descriptor field searching thereby "displaying concurrently a list of program descriptive fields

and an entry for searching a text string" in database queries (Col. 4, Lines 28-41). Kahl further notes that it is advantageous to display concurrently the search query on the same display screen as the search results to "facilitate efficient user interaction therewith" (Col. 4, Lines 13-28). The Kahl reference therefore provides an evidentiary basis that those skilled in the art would have recognized that the concurrent display of all search elements with the search result was within the ordinary skill in the art.

As previously argued by appellant, the particular concurrent display of search criteria within a single screen is a problem being solved by the invention which allows for the user to quickly and easily modify searches (14 April 2004). The concurrent display of the aforementioned results and search criteria by applicant is the same problem being solved and addressed by Kahl (Col 1, lines 58-61). The Kahl reference is not only analogous to the applicant's invention, but further provides the requisite teachings as to why one would have been motivated to particularly modify the Youman et al. search interface to "display concurrently a list of program descriptive fields and an entry for entering a text string". As recently noted in the *KSR International Co. v. Teleflex Inc.*, decision, a claim would have been obvious because the technique for improving a particular class of devices was part of the ordinary capabilities of a person of ordinary skill in the art, in view of the teaching of the technique for improvement in other situations. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified user interface of Youman et al. in

manner that employs the known techniques of concurrently displayed search elements evidenced by Kahl in a single interface so as to improve a similar devices thereby facilitating efficient user interaction therewith (Kahl: Col 4, Lines 19-22).

Priority

4. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional application upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 1-13 of this application. In particular, the provisional application does not disclose the limitation of "displaying concurrently a list of program descriptive fields and an entry for entering a text string . . . and . . . performing an alphabetical sort of the programs in response to the user selection of the program descriptive field".

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on September 14th, 2007 was filed after the mailing date of the BPAI decision made on February 28th, 2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Youman et al. (US Pat. 5,629,733) in view of Kahl et al. (US Pat. 5,428,735).

In consideration of **claim 1**, the Youman et al. reference discloses a base device or “apparatus” [10] (Col 7, Lines 41-50) wherein “program guide information” is searchable and alphabetically sorted under the direction of a “control means” [16]. The system is operable to facilitate these operations via a “user control means” [31/40] (Figures 3-4) which enables a user to “select a

program descriptive field from the list of program descriptive fields" [321] (Figure 38C; Col 32, Lines 17-29) and to subsequently "enter a text string having one or more user-selectable characters in the entry" [330] (Figure 38F) to search for programming (Col 31, Lines 52-67). Subsequent, to the entry of the "text string" [330] the "control means" [16] is operable to "perform an alphabetical sort of the programs in response to the user selection of the program descriptive field" (Col 31, Lines 5-9) and to "locate a first program with the respective program description in the selected program descriptive field in response to the entered text string based on the entered text string" as is illustrated in Figure 38F (Col 32, Lines 1-16). Youman illustrates interfaces for "displaying a list of program descriptive fields" [321] (Figure 38C) and the interface for displaying an "entry for entering a text string" as consecutive screens, failing to show the claimed limitation of "displaying concurrently the list of program descriptive fields" [321] (Figure 38C) and "an entry for entering a text string" (Figure 38D).

In an analogous art associated in the field of database querying, Kahl notes that search databases allowing keyword and descriptor field search were known in the art at the time of the invention (see column 4, lines 34-38, "the WESTLAW and LEXIS legal research databases allow for full-text keyword and descriptor field searching"). Kahl is concerned with the method of providing efficient query interfaces on such databases to address their drawbacks such as "significant distraction, which can result in search strategy errors" resulting from "continuous opening and closing of windows". See

column 1, lines 53-61. In particular, Kahl discloses the method of displaying a *search queries* window *consecutively or simultaneously* with the *search results* window. Kahl discloses that it is advantageous to display a query window simultaneously with the result window on a video display, because it facilitates "efficient user interaction therewith". See column 4, lines 13-22. Therefore, those skilled in the art would have recognized that applying the known method/technique of displaying search querying elements and search results concurrently on a single screen as taught by Kahl to the Youman et al. reference would have been obvious since it facilitates an efficient user interaction.

In consideration of **claim 6**, the Youman et al. reference discloses "method for processing program guide information" such that "program guide information containing a respective program description for programs" is searchable and alphabetically sorted. The method involves a user "selecting a program descriptive field from the list of program descriptive fields" [321] (Figure 38C; Col 32, Lines 17-29) and "entering a text string having one or more user-selectable characters in the entry" [330] (Figure 38F). Subsequent, to the entry of the "text string" [330], the system "performs an alphabetical sort of the programs based on the selected program descriptive field" and "locates a first program with the respective program description in the selected program descriptive field matching the entered text string" as is illustrated in Figure 38F (Col 32, Lines 1-16).

The reference, however, does not explicitly illustrate “displaying concurrently a list of program descriptive fields” [321] (Figure 38C), an “entry for entering a text string” (Figure 38D), and the “alphabetically sorted program guide information” [325] (Figure 38D).

In an analogous art associated in the field of database querying, Kahl notes that search databases allowing keyword and descriptor field search were known in the art at the time of the invention (see column 4, lines 34-38, “the WESTLAW and LEXIS legal research databases allow for full-text keyword and descriptor field searching"). Kahl is concerned with the method of providing efficient query interfaces on such databases addressing their drawbacks which include "significant distraction, which can result in search strategy errors" resulting from "continuous opening and closing of windows" . See column 1, lines 53-61. In particular, Kahl discloses the method of displaying a *search queries* window *consecutively or simultaneously* with the *search results* window. Kahl discloses that it is advantageous to display a query window simultaneously with the result window on a video display, because it facilitates “efficient user interaction therewith”. See column 4, lines 13-22. Therefore, those skilled in the art would have recognized that applying the known method/technique of displaying search querying elements and search results concurrently on a single screen as taught by Kahl to the Youman et al. reference would have been obvious since it facilitates an efficient user interaction.

In consideration of **claim 12**, the Youman et al. reference discloses an "apparatus" [10] (Col 7, Lines 41-50) wherein "program guide information" is searchable and alphabetically sorted under the direction of a "control means" [16]. The system is operable to facilitate these operations via a "user control means" [31/40] (Figures 3-4) which enables a user to "select a program descriptive field from the list of program descriptive fields" [321] (Figure 38C; Col 32, Lines 16-29) and to subsequently "enter a text string having one or more user-selectable characters in the entry" [330] (Figure 38F) to search for programming (Col 31, Lines 55-67). Subsequent to the entry of the "text string" [330], the "control means" [16] is operable to "perform an alphabetical sort of the programs based on the selected program descriptive field" such that the guide is "modified . . . based on the selected program descriptive field" and to "locate a first program with the respective program description in the selected program descriptive field in the selected program description field matching the entered text string based on the entered text string" as is illustrated in Figure 38F (Col 32, Lines 1-16). For example, a user selects a descriptive field such as "Title" and guide is "modified" so as to display a list of programs alphabetically sorted by title and the search string.

As previously set forth, the reference does not explicitly illustrate "displaying concurrently a list of program descriptive fields" [321] (Figure 38C) and an "entry for entering a text string" (Figure 38D). In an analogous art associated in the field of database querying, Kahl notes that search databases allowing keyword and descriptor field search were known in the art

at the time of the invention (see column 4, lines 34-38, "the WESTLAW and LEXIS legal research databases allow for full-text keyword and descriptor field searching"). Kahl is concerned with the method of providing efficient query interfaces on such databases whose drawbacks include "significant distraction, which can result in search strategy errors" resulting from "continuous opening and closing of windows" . See column 1, lines 53-61. In particular, Kahl discloses the method of displaying a *search queries* window *consecutively or simultaneously* with the *search results* window. Kahl discloses that it is advantageous to display a query window simultaneously with the result window on a video display, because it facilitates "efficient user interaction therewith". See column 4, lines 13-22. Therefore, those skilled in the art would have recognized that applying the known method/technique of displaying search querying elements and search results concurrently on a single screen as taught by Kahl to the Youman et al. reference would have been obvious since it facilitates an efficient user interaction.

Claims 2, 7, and 13 are rejected wherein the list of programs as illustrated in Figure 38F displays the list of programs as being "alphabetically sorted" with the "first program" most closest to the entered character or characters highlighted (Col 32, Lines 1-7). Specifically, upon entry of a text string (ex. "A"), the system presents an alphabetically sorted list of programs (ex. "A-List") having the entered text string within the previously presented program descriptive field (ex. Find all Titles with the Letter "A" in their name). The reference further teaches that in Figure 19 that the 'user is given a display of

all movies, prioritized by time and *then alphabetically* by title of show" (Col 17, Lines 18-21) and again Figure 38D describes the alphabetic by Title arrangement (Col 31, line 5- column 32, line 29).

Claims 3 and 8 are rejected wherein the "program descriptive field may relate to title" [321]. As illustrated in Figure 38C, other "program descriptive fields" such as the "context of the programs" or theme may be utilized (Col 32, Lines 16-29).

In consideration of **claims 5 and 10**, the aforementioned reference discloses displaying in the first line the "closest match" to the characters entered. For example, in the scenario in Figure 38E, when the user enters the title of "MAD", Youman discloses presenting user a list of the closest match of titles. In the specific example set forth in figure 38E, none of the search results present an exact match for the word "MAD" otherwise the title "MAD" would have been the first item in the list. Rather, the first program that is the closest match to the word "MAD" is the program "Mad About You", which is the next program on the alphabetical sorted list immediately following the position where the first program would have been located in the selected list. Accordingly, the reference illustrates that the search is operable to further display "closest match" terms that "immediately follow the position where the first program" is located when sorted alphabetically.

In consideration of **claim 11**, as aforementioned, the Youman et al. search query interfaces and the search result interfaces (Figures 38C and 38E) are presented in a "concurrent" or simultaneous view to the user as modified by

the teachings of Kahl et al. The Youman reference shows a plurality of other "program descriptive fields" such as the "context of the programs" or theme may be 'selected' (Col 32, Lines 16-29) in lieu of the title descriptive field. Kahl further discloses the need to allow a viewer to re-evaluate search decisions on the fly in view of the search results obtained from a previous query (Col 1, Lines 58-61). Since original query comprises selecting a descriptive field and entering a text string, the re-evaluating query on the fly would comprise of modifying the descriptive fields and/or text string; thereby meeting the step of "if another program descriptive field is selected from the list of program descriptive files, performing an alphabetical sort of the programs based on the entered text string and the another selected program descriptive field".

9. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Youman et al. (US Pat. 5,629,733) in view of Kahl et al. (US Pat. 5,428,735) as applied to claims 1 and 6 respectively above and further in view of Bohm et al. (US Pat. 5,404,507)

As to the recited limitations in **claims 4 and 9** wherein the sorting method moves "sentence articles" such that they are not used as the primary basis of searching, it is well known in the art to "move" or ignore indefinite and definite articles when sorting a list of descriptors such as titles, as was previously evidenced by applicant's admission of fact. The Youman et al. reference further suggests that it may be desirable to exclude uninformative listings (Col 31, Lines 23-33).

In an analogous art, Bohm et al. further discloses method of ignoring statistically probable stop words, including articles such as “an", “the” in a database search operation. See column 7, lines 53-57. Accordingly, it would have been obvious to one of ordinary skill in the art to further modify the aforementioned searching method/technique so as to “move any sentence articles of the respective program description to the end of the respective program description”, as is known in the art, evidenced by Burkowski, for the purposes of presenting the user with useful/meaningful search results regardless of variations of the use of the article.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- Shneiderman, “Designing the User Interface” 3rd edition illustrates a screen shot of Compton’s Interactive Encyclopedia, the screen shot comprising query interface concurrently displaying on a single screen: a list of descriptive fields (“find in"), an entry for entering a text string (“query” textbox), and the search results displayed with the query. See page 578, Plate C2.

- Web Archive of "SuperKids Software Review of Compton's Interactive Encyclopedia 1995" archived on May 13th, 1997 shows additional screenshot of the Compton's Interactive Encyclopedia with the aforementioned features.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USHA RAMAN whose telephone number is (571)272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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